

REMARKS

Reconsideration of the Final Office Action of March 17, 2009 and the Advisory Actions of June 30 and July 24, 2009 is respectfully requested. Based on the Advisory Actions it is understood that the Amendment of claim 1 and cancellation of claims 2-8 were not entered and thus this Preliminary Amendment amends the claims as they stood prior to receipt of the Final Office Action issued March 17, 2009. Entry of the amendments in this Preliminary Amendment is respectfully requested.

In the Final Office Action issued March 17, 2009, the Examiner rejected the claims as summarized below:

<i>IDENTIFICATION/ CLAIM NOS.</i>		<i>STATUTORY GROUND(S)</i>	<i>REFERENCE(S)</i>
<i>A</i>	<i>1 and 5-8</i>	<i>35 USC 103(a)</i>	<i>Hoblitzelle and Kottke</i>
<i>B</i>	<i>2 and 4</i>	<i>35 USC 103(a)</i>	<i>Hoblitzelle, Kottke and Russell</i>

As current claim 1 represents former claim 4, the discussion below is directed at the applied three way combination of Hoblitzelle in view of Kottke and in further view of Russell.

A review of the presented claim 1 reveals that there is included the following features:

- a) wherein there are many winding groups comprising cores and circular windings inside a stator frame with the supporting guides between the winding groups
- b) there are seal bushings on inside surfaces of the iron cores and windings;
- c) the seal bushings are connected to endcovers; and all these form the airtight cavity.

In addition claim 1 further describes that the supporting guides have smaller inside diameters than the seal bushings and the supporting guides are circular and have circular inside surfaces made from alloy.

A review of the three references relied upon in the Office Action reveals the following:

Hobilitzelle discloses a continuous tube structure 11. On the exterior surface of the continuous tube structure there is fixed a plurality of spaced apart stators 23. On the interior of the continuous tube structure there is a reciprocating set of solenoid cores 18 interconnected with dielectric shafts such as 21.

Kottke discloses a reciprocating pump having a continuous cylindrical tube structure 14 with its exterior surface supporting a surrounding stator 52 of its linear magnet drive system. Internal to the interior surface of the continuous cylindrical tube structure 14 there is positioned a reciprocation piston assembly 12 with a stacked armature set 62. Mounted on the interior surface of the continuous tube structure are bushings 15 which are designed for contact with "soft pole pieces 66". As also described in column 11, lines 7 plus:

Bushings 15 are provided for supporting the piston assembly 12 from the inner surface of the outer wall 16 of the cylinder 14 while permitting free motion of the piston assembly within the closed interior compartment 18 of said cylinder. The bushings 15 are fabricated from a material with a low friction coefficient and acceptable wear performance, such as a composite-filled Teflon TM or other polymer material providing a dry lubricant transfer film to the opposed sliding surface. The use of these latter materials eliminates the need for employing a separate liquid lubricant with the bushings. The bushings 15 may be mounted to the cylinder wall or piston assembly, as desired.

The Russell reference describes a threaded connection between its stator assembly comprised of an interior cylinder wall with an interior surface extending coplanar with the interior surface of the above and below tubing to which it is connected at its opposite ends. There is further provided an outer cylindrical stator housing wall with the inner and outer radially spaced cylindrical walls being secured to the respective above and below tubes by way of upper

and lower caps 212 and 218 which have an interior surface also coplanar with the stator tube 222 and hence also coplanar with the above and below positioned tubing such as production tubing 204. There is further featured a linear armature 300 having plastic spacers 324 to 330 which are designed to slide along the interior surface of the continuous cylindrical inner wall of the stator assembly.

In the second Advisory of July 24, 2009 there was asserted the following:

“Kottke teaches supportings guides having smaller inside diameters than the stator’s innermost diameter, Russell then teaches placing seal bushings onto the circular inside surfaces of the iron cores of the stator.”

However, it is clear from the teachings of Hoblitzelle and the relied upon teachings of the secondary reference to Kottke that there is specifically avoided the use of supporting guides having an alloy inside surface in favor of the cold flow, dry lubricant guides 15 said to have been obviously positioned inward of the continuous interior surface of the tube in Hoblitzelle.

Thus, none of the references, alone or in combination, teach the current claim 1 arrangement described above featuring seal bushings that are associated with stator framing and connected to end covers, in conjunction with smaller inside diameter supporting guides (relative to the inside diameter of seal bushings that are between the end covers and covering the inside surfaces of the iron cores and windings).

In this Preliminary Amendment there is featured new independent claims 9 and 21 which describe a stack arrangement not appreciated or disclosed in any of the three applied references. For example, as described above, each of *Hoblitzelle* and *Kottke* feature a continuous tube encompassed by a stator assembly which is secured to the exterior of that continuous tube. Russell features end caps 212 and 218 and the above described radially spaced inner and outer walls for its stator assembly. As further seen from Figure 2A of Russell, there are gaps or free spacings between the ring/coil combinations in which, for example, is positioned sensors such as

sensor 342. Reference is also made to the disclosure of Russell on col. 4, lines 62 to 67 describing its connection arrangement relative to the stator assembly as a whole.

Thus, the applied combination is also respectfully submitted not to disclose, suggest or render obvious the stacked arrangement presented in independent claims 9 and 21. Thus, the dependent claims depending therefrom are also respectfully submitted to be in condition for allowance.

Accordingly, it is respectfully submitted that all presented claims are in condition for allowance. Moreover, it is submitted that this application in its entirety now is in condition for allowance. No fees are believed to be due for consideration of this amendment. In the event that additional fees are necessary to prevent abandonment of this application, then such fees required therefore are hereby authorized to be charged to Deposit Account No. 02-4300, Attorney Docket No. 034257R002.

Respectfully submitted,
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